

15 September 1970

To: Contracting Officer, Contract LK-3626 ✓

Subject: SUBMITTAL OF ECP U-2R-61

Transmitted herewith for your consideration and approval are four (4) copies of ECP U-2R-61, entitled, "Personnel Parachute - Control Of".

Your earliest response and approval will be appreciated.

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cc:

Approved For Release 2002/08/01 : CIA-RDP75B00285R000100080002-1	
LOCKHEED-CALIFORNIA COMPANY	ENGINEERING STUDY <input type="checkbox"/> CHANGE PROPOSAL <input checked="" type="checkbox"/>
LAC U-2R-61	
DATE 15 September 1970	AFFECTS: WSPO <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/>
NAME OF MAJOR COMPONENT Parachute	PART OR LOWEST SUBASSEMBLY PART NO. & MODEL OR TYPE RQ225-3
TITLE OF PROPOSAL : PERSONNEL PARACHUTE - CONTROL OF	
NATURE OF PROPOSAL : 1. To add six (6) line release to provide sufficient descent control. 2. Similar ECP for SR-71 has been submitted.	
REASON FOR PROPOSAL : This ECP covers the design, testing and qualification of subject improvement of six (6) line cut on chute.	
ES	ESTIMATED COST AND TIME INVOLVED :
	ADDITIONAL FUNDING REQUIRED :
CP	ESTIMATED COST FOR KITS OR PARTS : See Page 3
	ADDITIONAL FUNDING REQUIRED : See Page 3
ITEMS AFFECTED BY PROPOSAL :	
SAFETY <input type="checkbox"/>	MISSION EFFECTIVENESS <input type="checkbox"/>
PERFORMANCE <input type="checkbox"/>	OPERATING PROCEDURE <input type="checkbox"/>
INTER- CHANGE- ABILITY <input type="checkbox"/>	WEIGHT OR WEIGHT & BALANCE <input type="checkbox"/>
TOOLS & SUPPORT EQUIPMENT <input type="checkbox"/>	MAINTENANCE PROCEDURE <input type="checkbox"/>
SERVICE LIFE <input type="checkbox"/>	FLIGHT MANUAL <input type="checkbox"/>
MAINTENANCE MANUAL <input type="checkbox"/>	
EST. MAN/HRS. REQ'D. TO ACCOMPLISH CHANGE IN FIELD	
SOURCE OF PARTS FOR KIT LAC, GFE and Purchased	AVAILABILITY <u>XXX</u> WEEKS AFTER APPROVAL See Page 2
DISPOSITION OF SPARES AFFECTED N/A	
INITIATED BY : Customer Request	APPROVED : WSPO PROJECT

ECP U-2R-61

ECP CHECKLIST

1. Applicability

This change affects the personnel parachute.

2. Tests Required

A. Static Tests (ADP)

This will be a series of static pull tests on the suspension line to riser line connection where the line release is located. Object of the tests is to determine the amount of static strength degradation resulting from the line release incorporation.

A minimum of twelve (12) tests are required.

Test Equipment Required:

Six (6) test samples - standard (purchased)
Six (6) test samples - modified (purchased)

B. Whirl Tower Tests (El Centro Facility)

This will be a series of six (6) tests at medium and high speed (175 kt. and 250 kt.) to insure that the modification has not adversely affected the functional and structural integrity of the system.

Test Equipment Required:

Three parachutes rigged for whirl tower usage (see 2D)
Modified parachutes used for other tests, jumps, etc.

C. Airplane Drop Tests (El Centro Facility)

This will be a series of torso dummy (GFAE) drop tests out of a C-130 aircraft at the USAF El Centro Parachute Test Facility. The object of these tests is to determine the margin of safety of a six line release on this parachute.

To determine this, we will cut suspension lines progressively until we attain canopy collapse. A minimum of six (6) line drops are required.

Test Equipment Required:

Reefing line cutters (purchased equipment)
Three (3) test parachutes (see 2D)
Dummy recovery chute packs (El Centro furnished)
Test aircraft, camera, and range facilities (El Centro furnished)

ECP U-2R-61ECP CHECKLIST

D. Live Jump Tests (El Centro Facility)

This will be a series of eighteen (18) live jump tests. The purpose of these tests is to determine the degree of descent control afforded by the modification, and also the ability of personnel to actuate the line release and then steer the parachute for a specific ground target area. On most of these jump tests, the jumpers will be wearing the flight equipment of pressure suit and survival kit (GFAE).

The jumpers will be required to utilize the URT/33 (GFAE) Locator Beacon to test the pull of arming plug.

Test Equipment Required:

- Three (3) test parachutes (EAFB furnished)
- Three (3) jumpers, suited up in the pressure suit and survival kit
- Modification and equipment for use of the jumpers standard emergency parachute - (El Centro and EAFB furnished)

3. Test Coordination

ADP personnel will coordinate the test requirements and work out details with El Centro personnel.

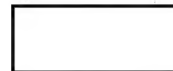
At the conclusion of the test program, ADP will compile a test report including all test efforts and results.

4. Kit

This is a development - test, and qualification program only. Subsequent to successful completion of the test and qualification program, a production retrofit program will be scheduled through the submittal of another ECP.

5. Contract IK-3626, Customer Common

Estimated cost of design, testing and qualification



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Note: 1. Personnel equipment including pyrotechnics and the use of test facilities at El Centro have been assumed GFE for pricing purposes.

- 2. Approval of a similar ECP for the SR-71 project would result in a reduced cost to the U-2 Program, since the costs would be shared with the SR-71 project.

6. Schedule

Testing and qualification program to be complete approximately three (3) months after approval.

7. Additional Funding Required

Funding requirements dependent upon negotiated levels for FY-71 Support Contract IK-3626